

AMENDMENTS TO THE CLAIMS

1-16. (Canceled)

17. (Currently amended) A method for permanently occluding a vein through the combined disruption of a vein vessel wall and application of a sclerosant, comprising the following steps:

advancing an elongated intraluminal member from an access site through and into the vein to a treatment site in the vein, wherein the intraluminal member has a portion thereof configured to produce damage to an inner vessel wall of the vein under user control when performing a defined movement;

damaging the inner vessel wall by performing the defined movement moving of the portion of the intraluminal member configured to produce damage against the vein's endothelium ~~at the treatment site~~ to disrupt the endothelium and ensure it is damaged and rendered susceptible to sclerosant; and

injecting sclerosant into the vein ~~at the treatment site~~ and onto the damaged ~~susceptible endothelium inner vessel wall, thereby causing it irreversible damage at the treatment site;~~

wherein the steps of damaging and injecting damages an extended portion of the inner vessel wall and exposes the extended portion to the sclerosant; and

wherein the damage to the inner vessel wall comprises destruction and disruption of the endothelium sufficient to: (1) enhance the effect of the sclerosant, (2) facilitate the destruction of the vein, and (3) increase the likelihood of permanent vein occlusion from the injected sclerosant.

18. (Previously presented) The method according to claim 17, wherein the step of moving comprises scraping the intraluminal member against the endothelium.

19. (Previously presented) The method according to claim 17, wherein the intraluminal member comprises a hollow infusion wire, and the sclerosant is injected into the vein through the hollow infusion wire.

20. (Original) The method according to claim 17, wherein the elongated intraluminal member is a balloon catheter.

21-22. (Canceled)

23. (Currently amended) The method of claim 17, further comprising withdrawing the intraluminal member through the vein toward the access site while ~~scraping~~ damaging the inner vessel wall and injecting sclerosant.

24. (Previously presented) The method of claim 17, wherein the intraluminal member is advanced through a sheath, and the sclerosant is injected into the vein through an annular space between the intraluminal member and the sheath.

25. (Previously presented) The method of claim 17, wherein the vein has a size of 2-10mm.

26. (Previously presented) The method of claim 17, wherein the defined movement comprises rotating the intraluminal member in the vein under the control of a motor so that a portion of the intraluminal member engages the endothelium.

27. (Previously presented) The method of claim 26, wherein the portion of the intraluminal member that engages the endothelium is sharpened.

28. (Previously presented) The method of claim 17, wherein the intraluminal member curves at a distal end.

29. (Previously presented) The method of claim 17, wherein the intraluminal member is simultaneously rotated and moved longitudinally.

30. (Previously presented) The method of claim 17, wherein the sclerosant is injected during the defined movement.

31. (Previously presented) The method of claim 30, wherein the intraluminal member is rotated and moved longitudinally during scraping.

Application No. 10/736,535
Amendment dated June 16, 2010
Reply to Office Action of March 16, 2010

32. (Previously presented) The method of claim 30, wherein the endothelium of the vein is disrupted without perforating the vein.

33. (Previously presented) The method of claim 17, comprising moving the intraluminal member longitudinally.

34. (Previously presented) The method of claim 18, wherein the sclerosant is injected during scraping.

35-44. (Canceled)